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Magalie Roman Salas,
Office of Secretary,
Federal Communications Commision

**Comments on Reports Addressing Potential Interference from Ultra-Wideband Transmission Systems (ET Docket No. 98-153)**

Dear Magalie,

CSSIP supports the comments of others such as GSSI, the GPR Circle of Finland, Gary Olhoeft, Jeff Daniels and Doria Kutrubes that geophysical tools such as GPR are valuable to the community and should be provided for under the proposed changes to the Part 15 rules.

We wish to re-iterate the distinctions between geophysical equipment such as GPR and most other UWB transmitters. Geophysical equipment must work at relatively low frequencies, they will always be low volume tools, they seek to send energy into the ground not the air and they will have a relatively low duty cycle of use. Similar distinctions were made in the NPRM (Notice of Proposed Rule Making) and have also been pointed out in numerous comments and reply comments.

The NPRM was inclusive of geophysical tools such as GPR and we request that the final regulations be similarly so.

Interference from UWB transmitters to either GPS or PCS receivers is the common theme of the five reports on which comment has been sought.

The worst cases of potential interference discussed in the reports involve UWB transmissions that give rise to strong discrete spectral lines in the GPS band. We suggest that improved compatibility between GPS and UWB could be achieved by ensuring that UWB transmissions appear similar to white noise to victim receivers. To this end we suggest that rather than applying a field strength limit at 3m of 500microvolts/metre as measured with a 1MHz resolution bandwidth, a limit of 158microvolts/metre as measured with a 100kHz resolution bandwidth be applied. This does not affect the power spectral density available to UWB transmitters but reduces by 10dB the maximum level of a discrete spectral line. Most commercial GPRs use a PRF of about 100kHz and hence should not be adversely impacted by such a change.

We also suggest that if the FCC does choose to alter the emission regulations from those proposed in the NPRM that this be done in a way that is inclusive of systems which use pulse compression modulation schemes rather than just limited to narrow-pulse type systems. This point was discussed in more detail in our earlier comment of 11 Sept 2000.

Don Sinnott
Chief Executive Officer, CSSIP